

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of claims:**

Claims 1-7 (canceled)

Claim 8 (new): A reversible multicolor recording medium comprising:

one or more recording layers each containing a plurality of reversible thermal coloring compositions having different coloring tones, wherein the recording layers are formed to be separated from and stacked on a surface direction of a supporting substrate; and

said plurality of reversible thermal coloring compositions containing a light-to-heat transforming material which absorb infrared rays having different wavelength ranges to generate heat, respectively;

wherein an absorption peak wavelength of said light-to-heat transforming material contained in said recording layers is a longest wavelength at a layer formed nearest said supporting substrate, and decreases in wavelength as the layer is closer to the surface layer in the stacked order.

Claim 9 (new): The reversible multicolor recording medium according to claim 8, wherein at least one of said light-to-heat transforming materials is cyanine dyes or phthalocyanine dyes.

Claim 10 (new): The reversible multicolor recording medium according to claim 8, wherein said plurality of recording layers are formed by stacking said recording layers via heat insulating layers, respectively.

Claim 11 (new): The reversible multicolor recording medium according to claim 8 wherein a protective layer is formed as an uppermost layer.

Claim 12 (new): The reversible multicolor recording medium according to claim 8, wherein

said recording layers comprise a color-forming compound having an electron donating property and a develop/subtractive agent having an electron accepting property, and

wherein said recording layers are reversibly changed to two states including a colored state and a decolored state by a reversible reaction between said color-forming compound having an electron donating property and said develop/subtractive agent having an electron accepting property.

Claim 13 (new): A method for recording image information using a reversible multicolor recording medium,

said reversible multicolor recording medium having one or more recording layers each containing a plurality of reversible thermal coloring compositions having different coloring tones, formed separated from and stacked on a surface direction of a supporting substrate, said reversible thermal coloring compositions containing light-to-heat transforming materials which absorb infrared rays having different wavelength ranges to generate heat, respectively, and an absorption peak wavelength of said light-to-heat transforming material contained in said recording layers that is a longest wavelength at a layer formed nearest said supporting substrate, and decreases wavelength as the layer is closer to the surface layer in the stacked order the method comprising:

setting the recording layers in a decolored state preliminarily by performing a heat treatment;

exposing said recording layers by irradiating with an infrared ray having a selected wavelength range corresponding to a selected recording layer, in accordance with predetermined image information; and

allowing said recording layers to be selectively colored by generating to heat.

Claim 14 (new): A method for recording medium recording image information using a reversible multicolor recording medium,

said reversible multicolor recording medium having one or more recording layers each containing a plurality of reversible thermal coloring compositions having different coloring tones, formed separated from and stacked on a surface direction of a supporting substrate, said reversible thermal coloring compositions containing light-to-heat transforming materials which absorb infrared rays having different wavelength ranges to generate heat, respectively, and an absorption peak wavelength of said light-to-heat transforming material contained in said recording layers is a longest wavelength at a layer formed nearest said supporting substrate, and decreases in wavelength as the layer is closer to the surface layer in the stacked order, the method comprising:

setting the recording layers in a colored state preliminarily by performing a heat treatment;

exposing said recording layers by irradiating with an infrared ray having a selected wavelength range corresponding to a selected recording layer, in accordance with predetermined image information; and

allowing said recording layers to be selectively decolored by generating to heat.